

The Joint Committee on Public Health & Land Use Planning was created in April 2005. The Joint Committee was established with four members of the Lincoln/ Lancaster County Board of Health and four members from the Lincoln/ Lancaster County Planning Commission. The following members donated countless hours of service while serving on the Joint Committee and compiling this report:

Board of Health

Dr. Ed Schneider, co-chair Dr. Catherine Alley

Dr. Rodrigo Cantarero

Dr Lisa Peterson

Planning Commission

Mary Strand, co-chair

Gene Carroll

Lynn Sunderman

Tommy Taylor

The initial charge of the Joint Committee was to:

Review the interwoven issues of public health and land use planning and community design to determine if current practice, policy, and law assure a safe and healthy community.

Issues to be considered shall include:

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- ☐ Industrial zoning and Use & Storage of Hazardous Materials
- ☐ Transportation of hazardous materials

In spring of the Joint Committee agreed that issues regarding the transportation of hazardous materials via rail or roads and potential issues regarding transportation and noise should be addressed once additional information and study has been completed. It is anticipated that the Joint Committee will reconvene in late 2006 or early 2007.

This Joint Committee met monthly, and on several occasions twice a month to complete this report. The Joint Committee invited public comment on several on their draft documents at several points in the process. This report represents the consensus of the Joint Committee in three areas the following three areas:

Contents of Final Report of June 2006

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Active Living By Design

Completed October 25, 2005

Findings

- 1. Overweight and obesity among adults and youth is an ever increasing problem in the United States, in Nebraska, and in Lincoln and Lancaster County.
 - The percentage of adults and youth who are overweight and obese has been described as an epidemic. The "obesity epidemic" may be more accurately described as an epidemic of poor nutrition and physical inactivity. Currently, over 60 percent of the nation's adult population is overweight or obese. The problem is evident in the United States, Nebraska and in Lincoln and Lancaster County. Of particular note is that the percent of adults who are classified as obese has doubled from 1990 to 2004, and now represents 23 percent of the national and state's population, and 21 percent of the county's population. The number of children and adolescents who are overweight or at risk for being overweight has now increased to 1 in 3.
- 2. Obesity contributes to serious health problems.
 - Obesity has been shown to lead to serious health problems including diabetes, heart disease, hypertension, stroke, and some cancers. Diabetes is a chronic disease that leads to increased health care costs; more hospital stays, and had an annual economic cost of \$132 billion in 2002 in the United States. Lancaster County data from 1997 to 2003 showed that the average cost for a hospital stay for a person with diabetes was 40 percent higher than the average for a non-diabetic (\$15,082 versus \$9,966). Nationally and in Lancaster County, an estimated 1 in 3 people are at risk of developing diabetes in their lifetime. Nationally, diabetes is the sixth leading cause of death, and the major cause of blindness, amputations and kidney failure. People with diabetes also have a

significantly increased risk of developing heart disease. Heart disease and stroke, the first and third leading causes of death, had total costs of nearly \$300 billion in 2002. (Source: National Diabetes Information Clearinghouse and the Centers for Disease Control and Prevention).

- 3. Increased physical activity is necessary to help control overweight and obese conditions in people.
 - Physical activity and diet are two important factors in controlling overweight and obese conditions in people. Generally speaking, as the level of physical activity increases, the number of persons who are overweight and obese decreases. There is good evidence to indicate that even a 5 to 7 percent decrease in body weight from increased physical activity and healthier eating can delay or prevent Type II diabetes. Simply walking alone has been shown to reduce the incidence of diabetes, and to help persons with diabetes control the disease.
- 4. The "Built Environment" can influence amount of physical activity.
 - Our "Built Environment" means, generally, how we physically design our communities including roads, neighborhoods, retail placement, sidewalks, pedestrian crossings, commuter/recreation trails, school placement, parking, and other aspects of community design that may impact peoples' level of physical activity.
 - The National Association of County and City Health Officials (NACCHO) has included land use planning as a priority component of its Strategic Direction 1, "Expand public health practice to include land use planning and support the integration of environmental health with other public health practices." This statement clearly indicates that public health is expected to have a role in land use planning as part of its mission to improve the health of the public.
 - The percentage of adults in the County who indicate that they do little or no daily physical activity has essentially remained the same over the past decade (22-25%). The numbers of children who are driven to school and individuals who make trips by car have increased significantly over time. This is partially affected by our city and neighborhood design.
 - The built environment can either encourage more trips by auto and discourage walking and physical activity or, conversely, with proper planning, might also help promote a more active lifestyle.

- 6. Standards and ordinances must adequately provide for pedestrian needs.
 - Some current standards and ordinances adequately provide for pedestrian needs such as standards requiring sidewalks on both sides of the street, and those requiring separation between sidewalks and streets. However, there are several areas, such as block length standards and pedestrian standards in commercial/industrial areas, where pedestrian standards need improvement.
- 7. Trail systems must be available and promoted for physical activity as well as for a means of commuting to and from work, retail, and/or services.
 - The City has a significant and popular trail system which encourages greater activity. However, the existing trails are aging and in need of repair. The trails network also needs to be expanded to serve new growth areas and to improve connectivity to ultimate destinations.
 - The trails and sidewalks are not just for recreation and leisure time activity, but also need to be thought of by the public as a means of commuting to and from work and/or as a means to reach necessary services such as grocery stores, shopping and events.

Goals

By 2015, decrease the proportion of children who are overweight or at risk for becoming overweight from 33% to 30%, a 10% reduction (the 2002-03 Nebraska Health and Human Services report on overweight among school children shows 1 in 3 children to be overweight or at risk for becoming overweight).

By 2015, show that the steady increase in overweight and obesity among Lincoln and Lancaster County adults (2004 Adult Behavioral Risk Factor Surveillance System (BRFSS) reports 67% of Lancaster County adults to be overweight or obese) has plateaued.

By 2015, increase the number of Lincoln and Lancaster County adults that report that they meet the recommendations for moderate physical activity (30 or more minutes per day on 5 or more days of the week) from 48.4% (2003 BRFSS) to 60%.

By 2015, increase by 20 percent the number of children that get the recommended minimum of 60 minutes of physical activity per day (baseline to be determined by grade level surveys of 25% of elementary school-aged children in Lincoln).

Objectives:

1. By 2010, increase to 50% (National Healthy People 2010 Objective) the proportion of trips to school made by walking by children ages 5 to 15 years living within one mile of school. (The current estimated proportion of walking trips to school by children in Lincoln is less than 15% based on assessments of number of children that walk to and from school in local schools.)

- A. Support and recommend expansion of existing and future programs (Example: Walking School Bus, Walk Your Child to School Day) that encourage children to walk to school and incorporate adult/community involvement to ensure safety.
- B. Enhance and expand partnerships of community agencies/organizations to promote the importance of children walking to school in a safe manner (among current partners are Safe Kids Coalition, Lincoln Public Schools, Lincoln Lancaster County Health Department, Lincoln Police Department, Lincoln Public Works, Lincoln-Lancaster County Planning Department, UNL, parent groups, Community Learning Centers, others).
- C. Maintain and/or implement "Active Living by Design" concepts with many partners (health, business, faith, education, city, media) promoting physical activity for health, recreation, and commuting.
- D. With the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) by Congress in 2005, the opportunity to pursue federal dollars specifically allocated for pedestrian, bicycle, and other alternative means of transportation should be a priority. Under SAFETEA-LU, projects focusing on sidewalk improvements, traffic calming and speed reduction improvements, pedestrian and bicycle crossing improvements, on-street bicycle and pedestrian facilities, secure bicycle parking facilities, and traffic diversion improvements can be funded. Non-infrastructure projects such as public awareness campaigns, traffic education and enforcement, student sessions for pedestrian and bicycle safety, and funding for training volunteers and managers of Safe Routes to School programs can also be funded. A minimum of \$1,000,000/fiscal year/state has been appropriated in the bill.
- E. Continue efforts to plan, construct, and maintain sidewalks and trails in a manner that is consistent with community design to support a physically active population.

2. By 2010, increase to 25% (National Healthy People 2010 Objective) from a presumed 17% (based on results of the Nationwide Personal Transportation Survey) the proportion of trips made by walking by adults whose destination is within one mile or less. (Baseline measurement will be achieved by a local version of the Nationwide Personal Transportation Survey.)

Recommendations:

- A. Expand the number of WorkWell, Inc. "Well Workplace" businesses that assess priority employee health issues including physical inactivity and overweight/obesity and implement programs to impact these priority health issues. (In businesses where emphasis and resources have been placed on increasing physical activity and decreasing overweight/obesity, significant progress has been made in improving these health indicators.)
- B. Maintain and/or implement "Active Living by Design" concepts with many partners (health, business, faith, education, city, media) promoting physical activity for health, recreation, and commuting.
- C. Support the mission and activities of coalitions/organizations that are dedicated to improving physical activity among both children and adults including "Lincoln In Motion", "123ActionNow, the Community Diabetes Prevention Project", Great Plains Trails Network, Mayor's Pedestrian and Bicycle Committee, WorkWell, Inc., Safe Kids Coalition, and other coalitions/organizations working for increased physical activity.
- 3. In the design of new neighborhoods, ensure that the built environment supports physical activity.

- A. Continue to require sidewalks on both sides of the street and limit waivers of this requirement.
- B. Provide a mix of uses, such as office, retail, schools, parks, recreational fields and religious assemblies within a neighborhood to provide the opportunity for persons to walk to work, shopping, recreation or social occasions; schools.

- C. Continue to require blocks to be less than a 1,000 feet in length to ease pedestrian movement, which also has the benefit of easing automobile movement.
- D. Continue on-going efforts to develop trail networks throughout the City and within neighborhoods. Trails should serve commuters and bike enthusiasts who desire to travel long distances, and recreational users who use the trails for shorter distances.
- E. Pedestrian access to schools is vital and should be an important design consideration when schools are located within neighborhoods; both a trail connection and multiple sidewalk routes to school should be provided.
- F. Pedestrian standards for commercial and industrial areas should be developed and implemented to provide for better pedestrian circulation. (Note: Standards were developed and adopted by the City Council on March 20, 2006)
- G. Explore the potential of incentives or bonuses for developments that implement many "Active Living By Design" elements.
- H. Implement an award or recognition program for neighborhoods that meet "Active Living By Design" principles.

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Pipelines Carrying Hazardous Materials

Completed February 20, 2006

Findings

- 1. Many larger diameter and/or high pressure underground pipelines that carry hazardous materials exist in Lancaster County. (See "Lancaster County Pipeline" map at end of report.)
 - Data from the Federal Department of Transportation's Office of Pipeline Safety indicates that there are 308 miles of interstate or intrastate pipelines in Lancaster County. Most of these pipelines carry natural gas (methane), some carry petroleum product (gasoline or diesel), some carry propane, and one carries anhydrous ammonia. These pipelines cross the county in various locations, with a higher proportion in the eastern and southern parts of the county. As the urban area of Lincoln expands, it has grown into areas which have larger, higher pressure natural gas pipelines which serve as the source for lower pressure, small diameter lines in the community. One example of this is the Vintage Heights area.
- 2. Underground pipelines can pose a risk to public health and safety due to occasional breaks in the pipes, which most often occur due to being struck during digging in the pipeline easement area.
 - Data from the DOT's Office of Pipeline Safety web site indicates that in Nebraska there were six (6) incidents (releases) with interstate or intrastate transmission or distribution pipelines in 2004. Four (4) involved pipelines carrying gas and two (2) involved pipelines carrying liquid.
 - One of these incidents involved a pipeline carrying anhydrous ammonia near Blair, which resulted in the evacuation of 40 people from their homes, farms and businesses for approximately 24 hours. Fortunately, the release was not near a populated area and the wind was blowing the "right" direction. The release was

- caused by third-party excavation being conducted to lay underground electrical cables.
- For the three year period between 2002 and 2004, an average of 3.9 incidents per year in Nebraska resulted in releases of hazardous gases from pipelines. Over the past ten years, the trend of incidents resulting in releases appears to be increasing. Only three injuries to people occurred in the past 10 years.
- 3. Companies purchase easements restricting construction around pipelines.
 - These easements are generally 30 to 100 feet wide (15 to 50 on either side of the pipeline to restrict buildings and construction on top of the easement. However, paving for parking lots or streets or crossing for utilities are allowed as long as adequate safety measures are taken to not disturb the gas line during construction. The pipeline in the easements is often marked to alert the public to its existence below ground.
 - The primary purposes of an easement for a pipeline is to allow access to the pipe for maintenance and protect the pipeline from damage by people, not to protect the people from who may live near the pipeline from a release of hazardous materials.
- 4. Federal law regulates the interstate transportation of hazardous materials in pipelines and was last changed in 2002 including:
 - ✓ Increased the requirements imposed upon pipeline companies, with the goal of decreasing the risks to public health and the environment and improving safety.
 - Increased public awareness requirements, added more frequent internal inspection of the pipelines for corrosion and increased frequency of maintenance. (Please see the Appendix A titled, "Pipeline Public Awareness and Integrity Management Program Summary.")
- 5. Persons or businesses in the "High Consequence Area" of a gas pipeline are occasionally notified of the existence of the pipeline, but there are not any regulations regarding preventing new uses from locating in this area. The High Consequence Area is based on the number of dwellings or businesses within a certain geographic area. The "Hazard Area" is measured regardless if there are currently buildings in the area or not, which is a more useful tool in developing areas.
 - The Hazard Area can be calculated using a formula developed by the Gas Research Institute, which takes into account the pressure and diameter of the

pipeline. For large diameter, high pressure pipelines the Hazard Area exceeds the mandatory easement requirements several fold. For example, the pipe in Vintage Heights has a 12 inch diameter pipe would have a hazard area of 277 feet wide (approximately 138 feet on both sides from the center of the pipe.)

The Hazard Area is based on a worst case scenario, which presumes there is complete cleavage of the pipeline resulting in gas under pressure being forced into the environment until it finds an ignition source. Such occurrences are rare, but have occurred in various parts of the U.S., including Bellingham, Washington and New Mexico, resulting in deaths. These events and many other pipeline spills have caused significant public debate regarding safety issues.

Goals

Strongly encourage that new development not build within the Hazard Area of high pressure underground pipelines.

By 2008, notification efforts at the local level should be increased to make residents and businesses more aware of the hazards of these pipelines and increase preparedness in case of an emergency.

Objectives

1. Inform and educate all who live along pipelines of the hazard, actions they can take to prevent pipeline releases and what to do if there is a release.

- A. Require that Title Companies have buyers of existing homes sign a form at closing acknowledging that they were notified of the existence of the home being in the Hazard Area. This will require more paperwork at closing and probably too late in the process for the potential buyer to seriously consider the implications so late in the buying process, but it is better than no notification at all. Health Department staff will have to work with City Attorney to see if this provision can be required locally and how it would be implemented.
- B. Require that property owners inform potential new renters or persons leasing property of the hazard area. Again, the Health Department staff will have to work with City Attorney to see if this provision can be required locally and how it would be implemented.

People have the right to know what hazards are near where they live. Government has a responsibility to assure people are informed of such hazards. The way High Consequence Areas are defined, many people living along pipelines would not be informed or educated if only the requirements under the Federal law are followed. People can make an informed choice of whether they want to accept the risk of living in or near an area which has a known hazard. Informed citizens are an integral part to protecting pipelines from damage. Providing people such information allows them to make an informed choice, based on sound information and their own perception of hazard and risk.

2. Increase awareness of pipelines prior to new construction within the Hazard Area.

Recommendations:

- A. In new developments, developers should avoid the Hazard Area as much as possible. For example, homes and businesses should be located out of the area as much as possible. Redesigning a site to place yards, parking or garages in the Hazard Area is preferable to having residences or businesses located in this potentially harmful area. Active recreation areas which would regularly draw large groups of people, such as playgrounds and baseball/soccer fields should not be placed in the Hazard Area as well.
- B. Maps should be developed clearly outlining the Hazard Area and shared with developers on request or as part of the review process. While these maps are public information, there is concern by some that if this information was too easily available it could be used by those wanting to rupture the pipe on purpose.
- C. The Health Department and Planning Department staff should be aware of these hazard areas and note them in reports to decision makers. Developers are encouraged to follow these recommendations.
- D. The Planning Department and City Attorney should ensure that covenants in new subdivisions include notification of the location of a hazard area within the subdivision. This will aid in notifying builders or owners prior the construction of their house, since most new lot buyers read the covenants prior to building.
- 4. Work more closely with the pipeline companies to determine what additional Integrity Management Program (IMP) activities (enhanced safety measures) could be employed along high pressure, large diameter pipelines in Lancaster County.

A.	Health Department staff should initiate contact with pipeline companies to discuss collaborative local efforts. Pipeline companies naturally want to reduce their liabilities and do not want to injure anyone or damage the environment. Enhancing IMP activities would be in line with enhanced public awareness activities. It would exceed Federal requirements and, in essence be an enhanced IMP.
	IMP.

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Use and Storage of Hazardous Materials

Completed June 23, 2006

Findings

- 1. **EPCRA**: There are thousands of hazardous chemicals which are regulated under Federal law and require reporting. Perhaps the most pertinent to land use planning issues is the **Emergency Planning and Community Right to Know Act** EPCRA, which requires reporting of the storage of hazardous materials. The main purpose of this federal law is to aid local emergency response planning. EPCRA requires reporting of thousands of hazardous materials so that Local Emergency Planning Committees (LEPC) can be prepared and informed as to the chemical present on site. In general, EPCRA does not regulate how the chemicals are handled or stored.
 - ✓ **Tier II:** Any entity which stores "Threshold Quantities" (TQ) of any of the thousands of hazardous substances are required under EPCRA to submit an annual report to the Federal government and the Local Emergency Response Commission. The Threshold Quantity for most chemicals is 10,000 pounds. Exceptions to this include extremely hazardous substances (see below), gasoline (TQ = 75,000 gallons) and diesel (TQ = 100,000 gallons). This is typically referred to as **Tier II reporting**. Information required to be reported includes the largest amount expected to be stored for a period of time, the "average" amount stored, and material safety data sheets (MSDSs) on all chemicals.
 - ✓ EHS: Within EPCRA, a subset of 356 chemicals are listed as Extremely Hazardous Substances (EHS). Threshold quantities of EHS chemicals is 500 pounds or less, depending on the toxicity and inherent hazards presented by the chemical to human health or the environment.
 - ✓ In 2004 in Lancaster County, 163 businesses (excluding gas stations) submitted Tier II reports for 735 total chemicals. Within this total 227 were unique chemicals. Of the 163 businesses that submitted Tier II reports, 66 reported 73

different Extremely Hazardous Substances exceeding the reporting threshold. While not all of these chemicals present an airborne or fire/explosion hazard if released (see RMP below), they do typically present significant health or environmental risk.

2. **RMP:** The Federal Clean Air Act regulates another group of 140 chemicals which potentially pose a grave health threat if released into the air (73 toxic chemicals) and/or present very high fire/explosion risk (67 chemicals). These are referred to as RMP (**Risk Management Program**) **Chemicals**. There are 46 industries or facilities which reported having at least one RMP chemical on their Tier II report. The 46 facilities reported a total of 16 different RMP chemicals (11 toxic and 5 flammable). Only 22 of the 46 facilities store large enough quantities of RMP chemicals to be subject to the Clean Air Act RMP regulations.

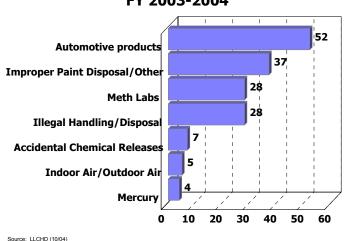
A site which uses and stores very large quantities of any of the 140 RMP chemicals, which fall under the regulatory requirements of Section 112 of the Federal Clean Air Act, are commonly called **Risk Management Program** (RMP) **Sites**. Of the 22 RMP sites in Lancaster County, 5 are located in Lincoln. All of these sites are also Tier II reporting sites. There are numerous federal regulations of RMP Sites, including mandating emergency response planning, modeling worst and likely releases, reporting of spills and some handling regulations. RMP regulations do not address spacing from residential uses.

- ✓ An example of an RMP site would be one which stores more than 2,500 pounds of chlorine or 10,000 pounds of anhydrous ammonia. In the County most Co-Ops which provide anhydrous ammonia for fertilizer are RMP sites.
- The risk presented by these chemicals is such that following the 9-11 terrorism attack in 2001, the Environmental Protection Agency (EPA) was ordered to remove data on the location of these chemicals from its publicly accessible databases.
- 3. These federal laws do not address separation of industrial and non-compatible uses, such as homes or schools. Environmental laws and fire codes do not address separation distances from one use (industrial) to another (residential). In addition, building codes do not address potentially incompatible uses in adjacent spaces of the same building. For example, a child care center could be located in the same building as a business which stores pesticides.
- 4. The Lincoln and Lancaster County zoning ordinance has a standard setback in industrial districts. The set back distances are not based on the risk posed by the materials used, but are standard distances.

Setback between an industrial building and residential zoning is:

- ✓ 20 feet in the I-1 Industrial district
- ✓ 50 feet in the I-2 Industrial Park district
- ✓ 50 feet in the I-3 Employment Center district
- 5. The I-1 and I-2 Industrial zoning district does require a special permit for the **manufacturing** of certain products, such as asphalt, ammonia and acids, but it does not require a special permit for the use and storage of hazardous materials, such as ammonia, or sulfuric acid. The I-3 Employment Center industrial district does not permit the manufacture of these same chemicals, but again does not address the use and storage.
- 6. Releases of hazardous materials due to accidents, equipment failure and human error are fairly common. Lincoln/Lancaster County Health Dept. (LLCHD) Chemical Emergency Response Team responds to over one hundred spills and releases every year, but very few of these are from industrial sources. Hazardous materials incidents which have the potential to impact large numbers of people occur less than five times per year. Typically, one or two of these larger releases of hazardous materials results in

Causes for Emergency Responses FY 2003-2004



people becoming ill that lived, worked or traveled near the source of the release. There has not been an off-site death caused by a hazardous materials release in the past 10 years in Lancaster County.

7. **Isolation and Protective Action Zones**: Potential evacuation zones for specific chemical releases can be modeled using various methods. One of the simplest and most accepted method is to apply the US Department of Transportation hazardous materials isolation and protective action zone guidance. An isolation zone is the minimal area required around a potential spill that should be immediately contained. A protective action zone is calculated based on whether it is day or night and if it is a small or large spill. Evacuation is one type of protective action, but remaining indoors is also sometimes an appropriate action depending on the chemical, thus the term "protective action" zone is more accurate than evacuation zone.

- 8. Maps of isolation and protective action zones can be created. When this methodology is used, areas of Lincoln that are near industrial zoning are identified within at least one isolation or protective action zone. **Most chemicals have an isolation and protective** action zone of 160 to 330 feet.
- 9. The Health Department has been recommending at least a 300 foot separation between industrial and residential uses, based on a typical protective action zone for most chemicals. However, the most hazardous chemicals have far larger isolation and protective action zones as noted above.
- 10. Even assuring compliance with existing laws is difficult due to lack of personnel for education, planning, compliance, or enforcement. For example, Chief Fire Inspector Bill Moody has indicated that his agency has issued approximately 145 permits for hazardous materials storage. His staff believe that the number of permits that could be issued is near 300. The Lancaster County Emergency Management Agency, which staffs the **Local Emergency Planning Committee** (LEPC), is staffed by two people. Since 9-11, their focus has been mainly on terrorism and Weapons of Mass Destruction. The Hallam tornado demanded extensive resource focus also. Due to these and other demands on time, the LEPC has not officially met for some time.
- In industrial zoning districts, some uses which may be incompatible with industrial uses are allowed by special permit. These uses may bring in hundreds of people on a temporary basis into the industrial district. For example, in the I-1 district, the following are possible by special permit:
 - ✓ Early Childhood Care Facilities
 - ✔ Private Schools, such as trade, gymnastics and karate schools (not including public or private K-12 schools)
 - ✔ Health Care Facilities
 - Outdoor theaters
 - ✓ Race tracks for motorized vehicles
 - ✓ Temporary shelter for the homeless
 - ✓ Sexually oriented live entertainment establishments

Some of the uses, such as race tracks, homeless shelters and sexually oriented live entertainment may be difficult to site in other areas. The special permit process allows for a case by case review of each possible use within the industrial district and for pertinent conditions to that use to be required.

12. Churches are allowed as a conditional use in the I-1, I-2, and I-3 districts. The City Attorney's Office has advised that federal law does not allow cities to discriminate against a church. In general, if a community allows other places of assembly in a district, it must allow churches and other places of worship. However, if all places of assembly are prohibited in a particular zoning district, then a community may also prohibit a church.

13. In older neighborhoods, I-1 zoning is often side by side to residential zoning with minimal setback distances. In addition, some residences are located within the industrial zoning district.

Goals

Prevention:

For newly developing areas, transitional uses (such as offices or commercial uses) should develop between industrial and residential uses.

In redeveloping areas, lesser setbacks may be acceptable due to the existing conditions, as long as industrial zoning does not get closer to existing residences.

Industrial zoning districts should be primarily for industrial uses.

Risk Reduction:

In areas where industrial and residential uses are already close, efforts should focus on changes in quantity and type of materials used and on increasing the distance between where hazardous materials are stored and residential districts.

Notification:

Persons living in close proximity to businesses with hazardous materials should be notified of the hazards.

Emergency Planning:

Businesses and government agencies should continue to work together on developing and updating Emergency Management Plans for dealing with accidents and emergencies.

Objectives

Prevention and Risk Reduction

1. In newly developing areas, placing commercial and other transitional uses between industrial and residential areas is desirable

Recommendations:

A. Any business which begins meeting or exceeding Tier II threshold quantities for RMP or EHS chemicals should be set back at least 300 feet from any residence in

a residential zoning district. Establish a special permit review for if a setback of less than 300 feet is requested. Existing uses should be grandfathered. The special permit should focus on items such as types of chemicals, isolation and protection zones, emergency plans and other conditions to address risks. In some situations, 300 feet may not be adequate separation to reduce public health risk to an acceptable level.

- 2. Non-compatible uses which bring in significant number of persons into an industrial area, such as speciality schools (such as gymnastics or judo), early childhood care facilities and recreational facilities should continue to be by special permit in industrial zoning districts. Residential uses and public/private elementary or secondary schools should continue to be prohibited in industrial districts.
 - A. Within two years, the City should completely revise the I-1, I-2 and I-3 zoning districts to better address hazardous materials and non-compatible uses which bring in significant number of persons into an industrial areas.
 - B. Modify the special permit conditions for speciality schools, child care and recreational facilities to prohibit these uses within 300 feet of the most hazardous chemicals (such as threshold quantities of RMP and EHS substances) and to require appropriate conditions such as emergency evacuation plans and shut-offs. The ability to review these types of uses on a case by case basis is important for public safety they should not become conditional uses. Existing uses should be grandfathered.
- 3. Health Department, Bureau of Fire Prevention, Lincoln Fire and Rescue Department and other agencies should continue to assist businesses in choosing to use less hazardous materials, storing smaller quantities, plans to prevent spills and releases and on increasing distances between where hazardous materials are stored or used and residential zoning districts.

Notification

4. Provisions should be added to the conditions of special permitted uses such as early childhood care facilities and private schools (such as gymnastics and karate schools) requiring they notify their clients of their location if it is within 300 feet of a site with threshold quantities of RMP and EHS chemicals. This notification could be met by means such as a statement on client contracts and notices posted on site.

Emergency Planning

5. Lancaster County Emergency Management, the Health Department, Bureau of Fire Prevention, Lincoln Fire Department and other agencies should continue to assist businesses in the development of Emergency Management Plans

6. Consider modifying local Air Quality or Fire Code regulations to reduce risk posed by, and enhance emergency response planning for, the most hazardous chemicals used and stored in our community.

Before any changes are proposed to local Air Quality or Fire Code regulations, the following should be completed:

- A. Identify businesses with extremely hazardous chemicals that present an airborne or fire/explosion hazard if released and evaluate the potential health and environmental impact of a release. Stationary sources which have Threshold Planning Quantities (TPQs) of any EPCRA Extremely Hazardous Substance which is also a Clean Air Act 112) Risk Management Program chemical or process subject to "Program 2 or 3" should be identified. Potential health and environmental impact of releases should be assessed using GIS and modeling of plumes.
- B. Determine the current state of compliance by local businesses with the General Duty Clause of the Clean Air Act and the Fire Code hazardous materials regulations.
- C. Present findings and gather input from businesses, business associations, the Local Emergency Planning Committee, the Air Pollution Control Advisory Board, and other stakeholders.
- D. Develop recommendations for review by the Board of Health and Planning Commission Joint Committee on Health and Land Use.

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Appendix A

Public Awareness and Integrity Management Program Summary (prepared by the Lincoln/ Lancaster County Health Department)

Federal regulations, last updated in 2002, require pipeline operators to establish and implement public awareness programs relative to the operation of high-pressure underground pipelines transporting natural gas, propane, anhydrous ammonia, and petroleum liquids. Specifically, the these federal regulations are 49 CFR Part 192 - Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards and 49 CFR Part 195 - Transportation of Hazardous Liquids by Pipeline.

Both of these of federal regulations require that pipeline operators in existence on June 20, 2005 must have their written public awareness programs completed no later than June 20, 2006 based upon the American Petroleum Institute's (API) Recommended Practice 1162 Public Awareness Programs for Pipeline Operators. API's 1162 guidance document focuses on educating the public relative to two main objectives: prevention and response. The prevention objective focuses on reducing the number of pipeline accidents through minimizing "third-party" damage to the pipeline by promoting safe excavation practices and the use of the one call system, commonly known as the Digger's Hotline. The response component addresses appropriately educating the public relative to how they should respond in the event of a pipeline release. More specifically, the public outreach effort should communicate the hazards associated with a pipeline leak, what methods should be used to identify a leak, and what steps they can take to protect their health and safety in the event of a pipeline release. In addition, pipeline operators are encouraged to notify and educate the affected public that are located within High Consequence Areas (HCAs). API's 1162 provides pipeline operators with several options for media or message delivery to achieve their public awareness program goals.

Notably, "bill stuffers" are not considered an appropriate delivery method. At a minimum, API's 1162 recommended practice baseline program advises pipeline operators to conduct public awareness communications every two years. API's 1162 guidance document also provides options to enhance or supplement the baseline public awareness program. For example, if a particular segment of the pipeline is located in a high population residential area with a high rate of turnover, the pipeline operator should consider increasing the frequency of conducting public outreach in this area.

Per 49 CFR Part 192 - Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, by no later than December 17, 2004, pipeline operators must develop and follow a written integrity management program (IMP). According to 49 CFR Part 195 - Transportation of Hazardous Liquids by Pipeline, depending on the category of the pipeline, pipeline operators must develop and follow a written IMP by March 31, 2002, February 18, 2003, or one year after the date the pipeline begins operation.

To determine what segments of a pipeline are subject to the requirements of the IMP, pipeline operators must identify the High Consequence Areas (HCAs) along a pipeline's length. For both of the federal regulations, several methods are outlined for identifying HCAs. Once the HCAs have been identified, there is whole "laundry list" of requirements that must be completed relative to these pipeline segments. These requirements are primarily aimed at reducing the risk of pipeline incidents through conducting assessments of the pipeline's integrity or current condition. This involves, but is not limited to, conducting internal and external inspections, conducting risk assessments, and threat identification.

